



Developing an Effective UX Strategy: The JGI Story

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The JGI redesign story



- Institutional website jgi.doe.gov
- Site design was old and out-of-date
- Difficult to find key content

Redesign Goals:

1. New site structure, organization, content flow
2. New look & feel
3. New Content Management System (WordPress)

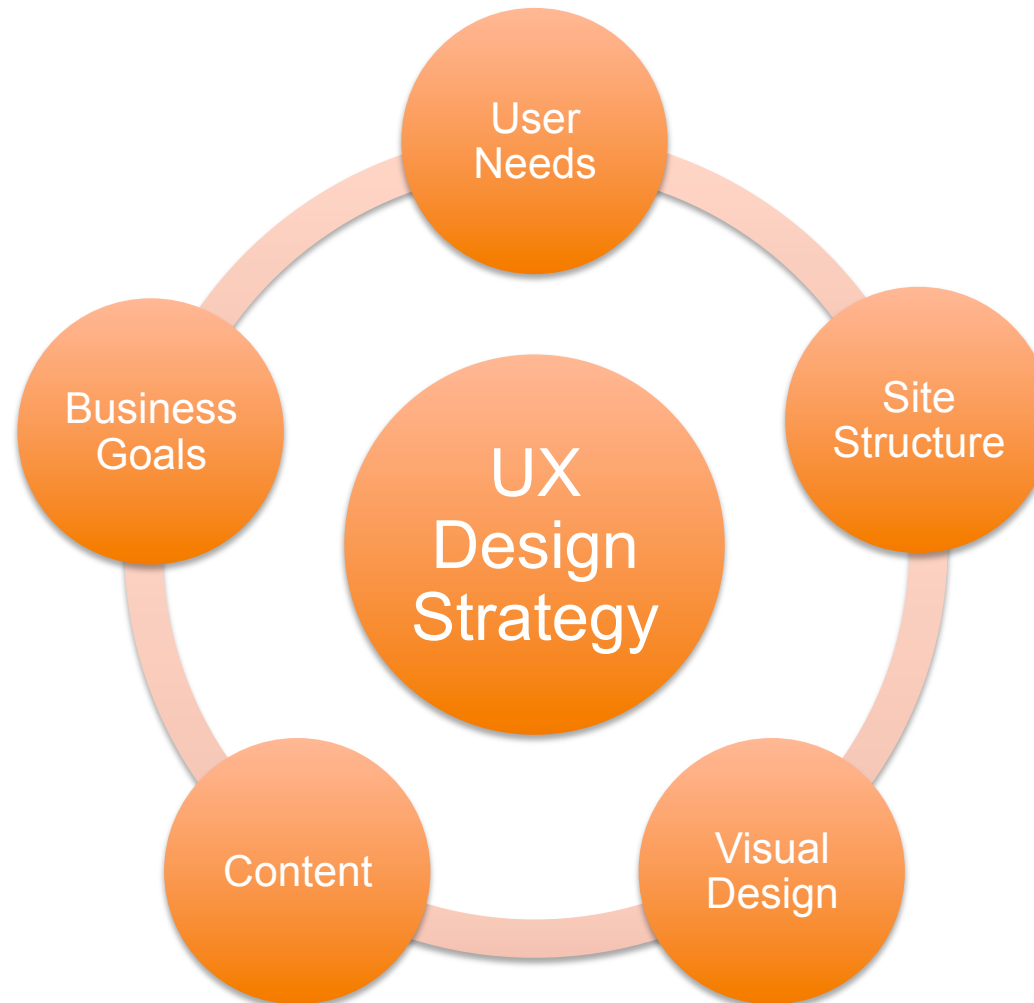
What is UX?

The user experience (UX) is what a person feels while trying to use a website or application.

The goal of a UX designer is to make the experience easy and pleasurable.



Our UX strategy in a nutshell



Our UX Design Process



Transform the user experience through the redesign process

1. Set stakeholder business goals

- Gather requirements, conduct stakeholder interviews

2. Identify user needs and priorities

- Review quantitative data (analytics), conduct user interviews

3. Plan for site content

- Audit old content, migration plan, identify new content, keywords

4. Design site structure and layout

- Card sorting, sitemap, wireframes, click-thru prototype

5. Apply visual design

- Graphic design mockups, markup for grid/CSS/HTML, code etc.

What the old site looked like



[MyJGI](#) | [Submit Proposals](#) | [Internal](#) | [Emergency Info](#) | [Careers](#)

[JGI website](#) | [People](#)

[Genomes](#) | [Project List](#) | [User Programs](#) | [Sequencing](#) | [Informatics Systems](#) | [Education](#) | [News & Publications](#) | [Events](#) | [About Us](#)

DOE Joint Genome Institute
 Enabling Advances in Bioenergy & Environmental Research

Latest News

March 10, 2014
A Tale of Two Data Sets: New DNA Analysis Strategy Helps Researchers Cut through the Dirt. For soil microbiology, it is the best of times. While no one has undertaken an accurate census, a spoonful of soil holds hundreds of billions of microbial cells, encompassing thousands of species. [»more...](#)

February 19, 2014
Pond-dwelling powerhouse's genome points to its biofuel potential. Duckweed is a tiny floating plant that's been known to drive people daffy. It's one of the smallest and fastest-growing flowering plants that often becomes a hard-to-control weed in ponds and small lakes. But it's also been exploited to clean contaminated water and as a source to produce pharmaceuticals. Now, the genome of Greater Duckweed (*Spirodela polyrhiza*) has given this minuscule plant's potential as a biofuel source a big boost. In a [paper published February 19, 2014 in the journal Nature Communications](#), researchers from Rutgers University, the Department of Energy Joint Genome Institute and several other facilities detailed the complete genome of *S. polyrhiza* and analyzed it in comparison to several other plants, including rice and tomatoes. [»more...](#)

January 30, 2014
Ocean sponge-dwelling bacteria have hidden talents. The kidney-red coral reef sponge, *Theonella swinhoei*, is a source of several anti-fungal and anti-cancer drug candidates. These compounds aren't produced by the sponge itself, but by symbiotic bacteria that live inside it. The compounds in question are called polyketides, secondary metabolites that happen to be made by just two bacterial tenants of *T. swinhoei*, which have eluded researchers up to now. [»more...](#)

Announcements & Events

User Meeting is March 18-20. Register Now!

[Now accepting Letters of Intent in response to the CSP15 call for proposals](#)

[Now accepting Letters of Intent in response to the JGI-EMSL Collaborative Science Initiative](#)

Harnessing the Flow of Data from Fungi

Helping unlock the secrets encoded in fungi genomes.

This Week's Science Highlights

February 21, 2014
Biofuels from a floating water weed. Duckweed is one of the smallest and fastest-growing flowering plants that can be a hard-to-control weed in ponds and small lakes. Sequencing the genome of Greater Duckweed (*Spirodela polyrhiza*) has provides clues about how the tiny plant can be used as an efficient biofuel raw material. [»more...](#)

Who We Are

[Energy and Environment](#)
[Genomic Technologies](#)
[Fungal Genomics Program](#)
[Metagenomics Program](#)
[Microbial Genomics Program](#)
[Plant Genomics Program](#)

Sequencing communities of organisms rather than a single isolate is motivated by the fact that most microbes exist in complex, interdependent communities and cannot readily be grown in the lab--yet harbor undiscovered metabolic capabilities.

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Tweets

Joint Genome Inst. @doe_jgi 7 Sep
 Grade 6-12 girls: Register now for Expanding Your Horizons conf sponsored by @Livermore_Lab @SandiaLabs #STEM 1.usa.gov/YhTLT Expand

Joint Genome Inst. @doe_jgi 6 Sep

What the old site looked like



Critical content areas for the JGI user community:

The screenshot displays the JGI website interface, characterized by a complex, stacked navigation structure. The main header includes the JGI logo and the text "DOE Joint Genome Institute Enabling Advances in Bioenergy & Environmental Research". Below the header, the navigation menu is organized into several overlapping panels, each containing a list of links and sections. The "Sequencing" panel is highlighted, showing a list of links including "Product Offerings", "Statistics", "Sequencing Plans", "Educational Resources", and "MyJGI: Information for Collaborators". Other panels visible include "User Programs", "Community Science Program", "Emerging Technologies Opportunity Program (ETOP)", "DNA Synthesis", "Technology Development Pilot Program (TDP)", and "Visiting Scientist Program". The layout is dense, with multiple levels of navigation and overlapping content, making it difficult to find specific information. The footer includes the U.S. Department of Energy logo and the text "Office of Science".

User Programs

- Project Management Office
- Community Science Program
- Emerging Technologies Opportunity Program
- Technology Development Pilot Program
- Genomic Encyc. of Bacteria and Archaea
- MyJGI: Information for Collaborators

1,155 DOE JGI Unique Users

Principal Investigators (PIs), Co-PIs, collaborators, Eukaryotic annotators in FY2013.

Unique users are counted once, even though an individual may have several projects/roles.

The JGI Project Management Office (PMO) manages all relationships with the JGI User community, working directly with JGI collaborators to ensure that projects remain on schedule and offer the best quality and efficiencies, from proposal initiation and project planning to project close-out.

Find out more about PMO

Community Science Program, including JGI-EMSL Coll

The CSP is JGI's proposal-based user program designed to bring high-tech community at large. Members of the national laboratory community are welcome to participate.

- Overview of the Community Science Program
- How to Propose a CSP Project
- CSP Proposal Schedule
- CSP Review Process and Contract Documents
- DOE Mission Relevance
- CSP FAQ
- Sequencing Plans: 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012.

Emerging Technologies Opportunity Program (ETOP)

New funding opportunity: The DOE JGI Emerging Technological Opportunity Program (ETOP) provides its users with capabilities.

DNA Synthesis

Sequence data from genomes, metagenomes and single cells allow the development of higher-level functions such as carbon-source utilization, secondary response, photosynthesis, and nitrogen fixation. DNA synthesis proposals factoring, screening and functional characterization of multi-gene pathway areas, both in microbes and eukaryotes. Particular focus areas within this functional prospecting of diverse species/metagenomes, require the construction of a library, and exploit coupling to high-throughput screening technologies. Small scale sequencing projects are encouraged.

Technology Development Pilot Program (TDP)

To complement the CSP, the Technology Development Program (TDP) was designed to provide users with early access to nascent technologies at the JGI and in close collaboration with onsite scientists. Projects supported through the TDP are expected to use groundbreaking methods that are currently emerging (and not offered through the CSP program) to address questions of immediate DOE mission relevance. High-risk/high-reward projects exploring the very limits of current technology in the context of cutting-edge scientific questions are encouraged.

- Purpose
- Capabilities
- Anticipated Scale
- Mechanism of Application
- Pre-proposal Inquiries
- Proposal Review

Visiting Scientist Program

The DOE Joint Genome Institute Visiting Scientist Program (VSP) provides an opportunity for faculty-level scientists who are seeking to build upon their line of scientific inquiry by leveraging JGI experimental, computational, and personnel resources for genomic research and resources-based science. Projects include de

Sequencing

Product Offerings

Browse a list of the current JGI product offerings.

Statistics

Daily, quarterly, and yearly sequencing statistics.

Sequencing Plans

Yearly sequencing plans for JGI user programs.

Educational Resources

Tools and resources to learn more about the sequencing process.

MyJGI: Information for Collaborators

Information about submitting samples; status reports; JGI policies regarding finishing, publication, and data release, and sequencing protocols.

Home > Sequencing

Contact Us Credits Disclaimer Access Keys Accessibility/Section 508

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U.S. DEPARTMENT OF ENERGY Office of Science

Hidden, stacked deep under misleading navigation titles

What the old site looked like



The site's most dynamic content:

News items, science highlights and publications

Hidden under navigation layers and third party blogging website

9/10/2014

The screenshot shows the DOE Joint Genome Institute website. The header includes navigation links: MyJGI, Submit Proposals, Internal, Emergency Info, Careers, JGI website, and People. Below the header is a main navigation bar with links: Genomes, Project List, User Programs, Sequencing, Informatics Systems, Education, News & Publications, Events, and About Us. The main content area features the JGI logo and the text "DOE Joint Genome Institute Enabling Advances in Bioenergy & Environmental Research". A "News and Publications" section is highlighted, containing a list of links: News Releases, Science Highlights, JGI in the News, Notable Scientific Publications, Scientific Posters, The Primer, and Templates and Logos. A "Latest News (via Twitter)" section displays three tweets from the Joint Genome Institute (@doe_jgi). A "Follow Us" section lists social media links for Blogger, Twitter, Flickr, Facebook, YouTube, SciVee, and LinkedIn. A "News Releases" section mentions the latest releases and a Twitter feed. A "Science Highlights" section offers brief articles about the best in JGI science. A "JGI in the News" section mentions media coverage and provides an archive of past news items. A "Notable Scientific Publications" section lists publications by JGI scientists in major journals. A "Scientific Posters" section mentions posters presented by JGI staff at scientific meetings. A "The Primer" section mentions the JGI newsletter. The footer includes a "Media contact" section with David Gilbert's contact information.

MyJGI | Submit Proposals | Internal | Emergency Info | Careers | JGI website | People

Genomes | Project List | User Programs | Sequencing | Informatics Systems | Education | News & Publications | Events | About Us

JGI
DOE JOINT GENOME INSTITUTE

DOE Joint Genome Institute
Enabling Advances in Bioenergy & Environmental Research

News and Publications

- News Releases
- Science Highlights
- JGI in the News
- Notable Scientific Publications
- Scientific Posters
- The Primer
- Templates and Logos

Latest News (via Twitter)

Tweets Follow

Joint Genome Inst. @doe_jgi 7h
2013 #carbondioxide conc in the #atmosphere increased "at the fastest rate for nearly 30 years." bbc.in/1ITlyvo
Expand

Joint Genome Inst. @doe_jgi 9h
In @FrontMicrobiol: @Columbia @LamontEarth & @stonybrook build off the brown tide #algae #genome we #sequenced bit.ly/1nJ2Hjh
Expand

Joint Genome Inst. @doe_jgi 22h
Good to have you at this MGM workshop @genelam

Tweet to @doe_jgi

Media contact:

David Gilbert
Joint Genome Institute
(925) 296-5643
DEGilbert@lbl.gov

News and Publications

PLAYLIST | 1 / 21 | Harnessing the Flow of Data from Fungi at JGI

Follow Us

Blogger | Twitter | Flickr | Facebook | YouTube | SciVee | LinkedIn

News Releases

Latest releases from the JGI, also see our [Twitter feed](#)

Science Highlights

Brief articles about the best in JGI science

JGI in the News

Mentions of JGI and its activities in the media
[Archive of past news items](#)

Notable Scientific Publications

Publications by JGI scientists in major journals

Scientific Posters

Posters presented by JGI staff at scientific meetings

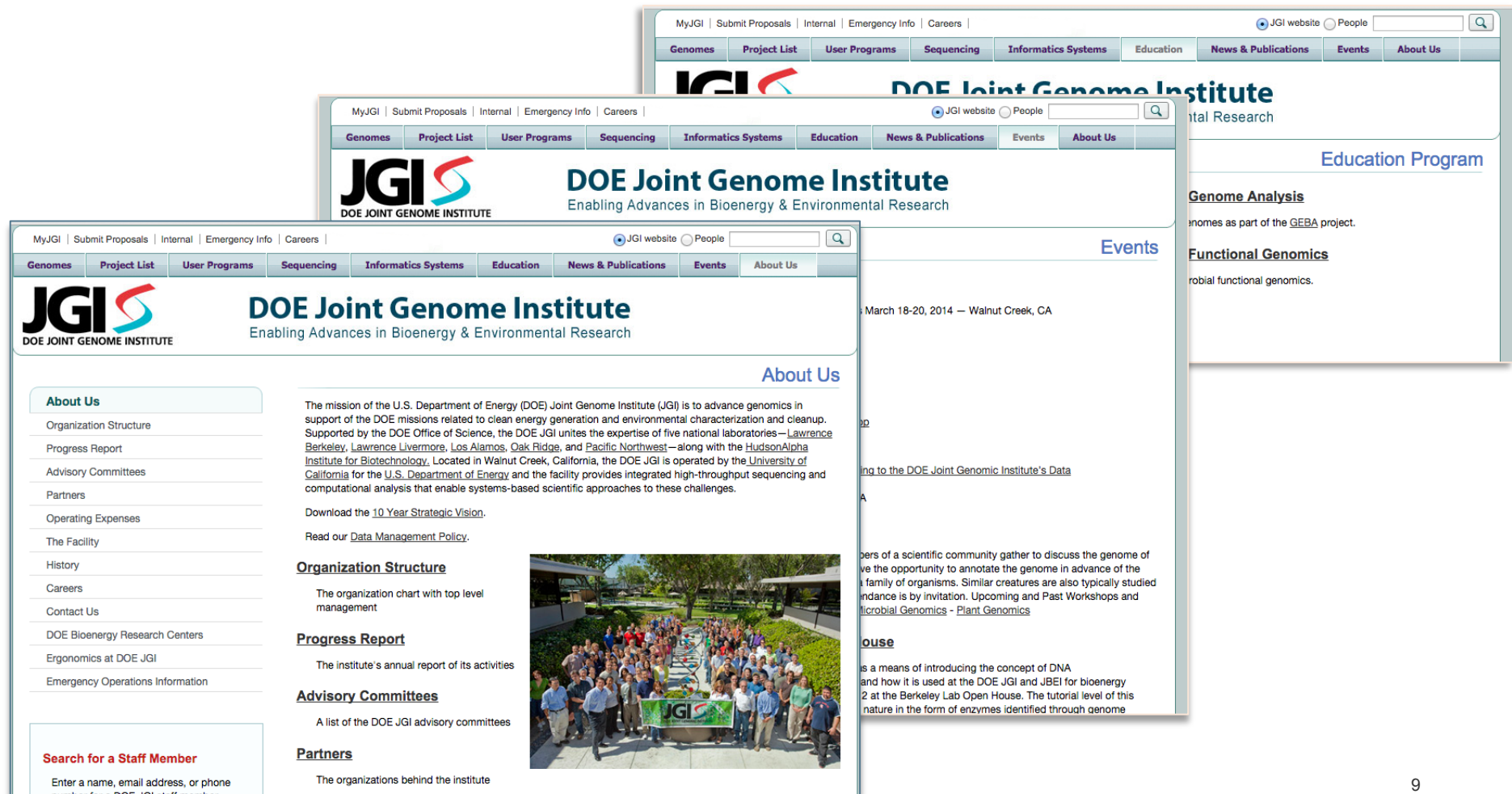
The Primer

The JGI newsletter

What the old site looked like



Navigation menu cluttered with non-essential items and links to 3rd party sites



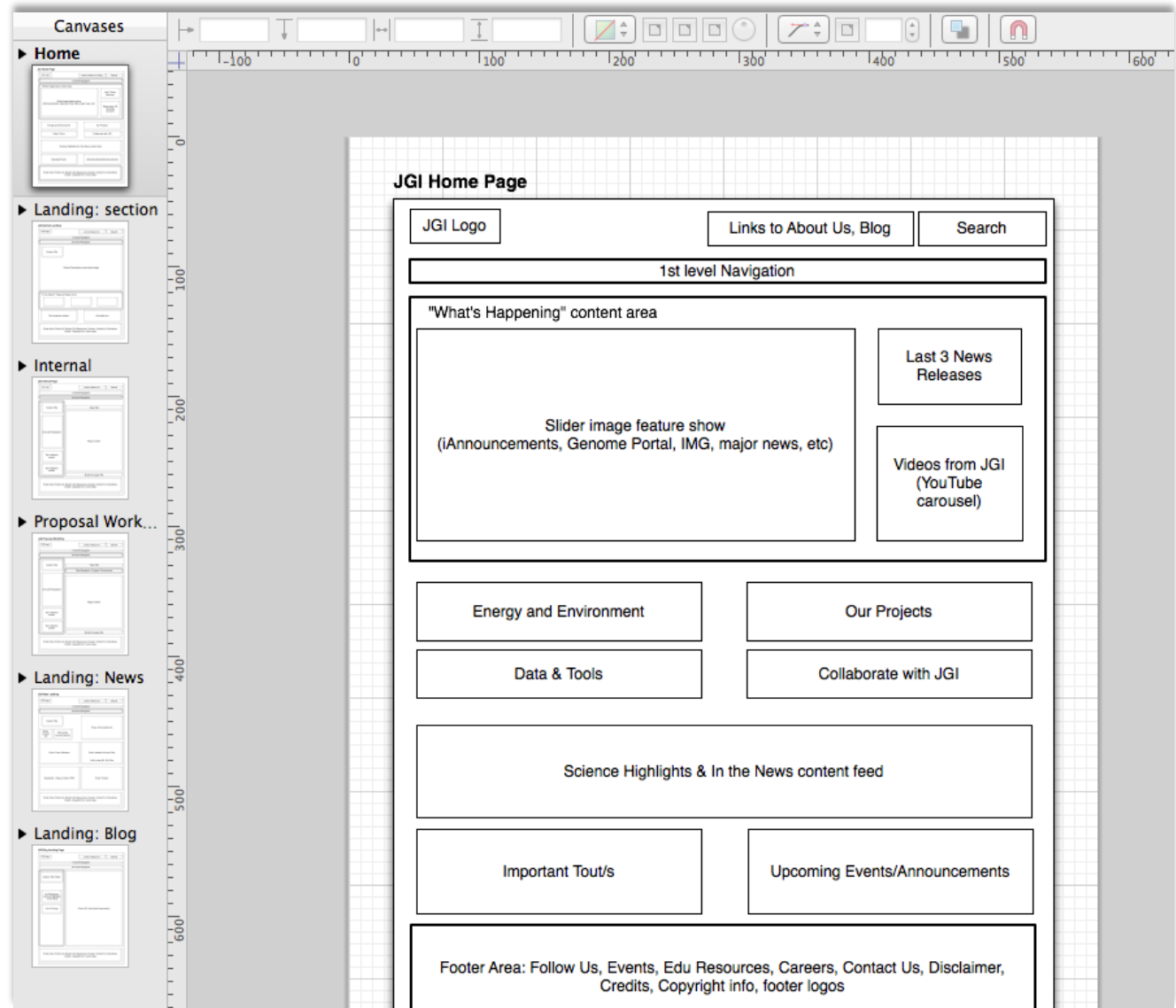
Plan for the new site structure

A new sitemap:

- [Search, in header]
- Search results
- Our Science (needs fresh content - get from latest Report and Science Highlights)
 - * DOE Mission Areas
 - * DOE Bioenergy Research Centers
 - More About Bioenergy Research at the DOE JGI
 - * Research Highlights
 - * Poplar genome to large-scale dataset
 - * Harmful algal blooms
 - * Yellowstone extremophiles
 - Research Highlights (needs fresh content)
 - Termite Power: Nature's Bioreactor
 - The Poplar Tree: Advancing Alternative Energy Sources (content link)
 - Corn: The Leading U.S. Fuel Ethanol Crop (content link)
 - Soybeans: Translational Genomics for Clean Energy
 - Switchgrass: Power Grass (content link)
 - White Rot: Nature's Wood Pulp Processor (content link)
 - Brachypodium: Growing Grass for Energy (content link)
 - The Benefits of Biomass
 - * The Ethanol Producers [The Fuel Producers]
 - * The Fuel Producers
 - Science programs
 - Microbial genomics
 - Why Microbes? change page name to: Mission Projects
 - Genomic Encyclopedia of Bacteria and Archaea (GEBA)
 - Pilot project
 - Why GEBA (link to "Interpret a Genome")
 - GEBA-RNB
 - GEBA-Cyano
 - Microbial Earth Project (MEP)

Plan for the new site structure

Wireframes for the new layout:



Introducing the new website!



[ABOUT US](#) [PHONE BOOK](#) [CONTACT US](#)

Search JGI websites ... [SEARCH](#)

[Our Science](#)

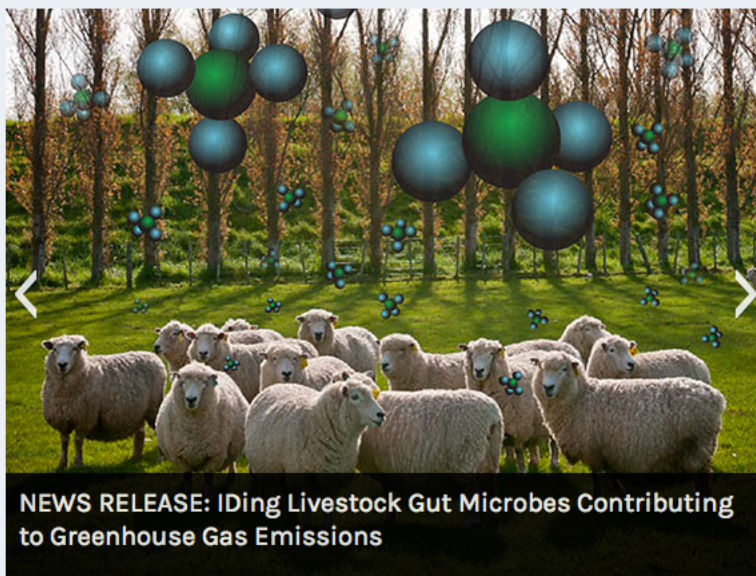
[Our Projects](#)

[Data & Tools](#)

[Collaborate with JGI](#)

[News & Publications](#)

WHAT'S HAPPENING



Latest News

AUGUST 24, 2014

Signatures of Selection Inscribed on Poplar Genomes

AUGUST 7, 2014

DOE JGI, EMSL Announce 2015 Collaborative Science Projects

[ALL NEWS RELEASES](#)

Announcements

Save the Date for the [10th Annual Genomics of Energy and Environment Meeting](#)

Small-scale [Microbial/Metagenome Proposals](#) due Nov 20, 2014

Read about our [Data Management Policy, Practices & Resources](#)



How we're contributing to bioenergy research.

[LEARN MORE](#)



Everything you need to know about getting a project started.

[LEARN MORE](#)

Improved content organization!



Critical new pathways for JGI user community

Collaborate with JGI
landing for new users

Our Projects
landing for existing users

The screenshot displays the JGI website's 'Collaborate with JGI' landing page. At the top, the JGI logo and 'JOINT GENOME INSTITUTE UNITED STATES DEPARTMENT OF ENERGY' are visible, along with navigation links like 'ABOUT US', 'PHONE BOOK', and 'CONTACT US'. A search bar is also present. Below the header, a navigation bar lists categories: 'Our Science', 'Our Projects', 'Data & Tools', 'Collaborate with JGI', and 'News & Publications'. The main content area features a large photo of Jeff Dangl, a man with a mustache and glasses, in a greenhouse setting. To the right of the photo, a green box contains text about JGI as a DOE national user facility. Below the photo, a caption reads 'Views from Our User Community: Jeff Dangl'. To the right of the photo, a section titled 'Find out how to apply:' lists links for 'The Community Science Program (CSP)'. Below this, a 'More resources:' section lists links for 'Submit a Proposal', 'Browse our current and past CSP projects', 'View a complete list of our product offerings', 'Learn more about our capabilities', and 'Access your project data'. Further down, a section titled 'The Community Science Program (CSP)' is divided into four columns: 'How to propose a project', 'Overview', 'DOE Mission Relevance', and 'Proposal Schedule'. Each column contains brief text and a 'LEARN MORE' link. At the bottom, there is a footer with various links (Careers, Contact Us, Events, User Meeting, MGM Workshops, Internal, Disclaimer, Credits, Emergency info, Accessibility / Section 508, Statement) and social media icons (Facebook, Twitter, Google+, LinkedIn, YouTube). The U.S. Department of Energy logo and 'Office of Science' are also in the footer. A copyright notice at the very bottom reads '© 1997-2014 The Regents of the University of California'.

New site sections!



A new site landing Our Science

Highlights the critical JGI message

**JOINT GENOME INSTITUTE**
UNITED STATES DEPARTMENT OF ENERGY

ABOUT US | PHONE BOOK | CONTACT US

Search JGI websites ...

Our Science | Our Projects | Data & Tools | Collaborate with JGI | News & Publications

Our DOE Mission Areas | DOE Bioenergy Research Centers | Science Programs | Science Highlights | Scientists at JGI

Our Science



AUGUST 28, 2014
Comparing Genomes/Lifestyles of Freshwater Bacteria
Single-cell genomics sheds light on nutrient and carbon cycling in Actinobacteria. The Science: Researchers assembled... [\[Read More\]](#)



AUGUST 21, 2014
Understanding Aureobasidium's Adaptability
Differences between genome sequences warrant fungal reclassifications. The Science: Researchers sequenced four samples of Aureobasidium... [\[Read More\]](#)



AUGUST 14, 2014
How yeast formations got started
Comparative analyses reveal gene family conserved across multiple yeast lineages. The Science: Researchers conducted a... [\[Read More\]](#)

Rapid technological advances in genomics have transformed modern biology. From its inception, the Department of Energy Joint Genome Institute has been at the forefront of large-scale sequence-based science.

Scientific Programs

Plant Program



The Plant Program focuses on fundamental biology of photosynthesis, conversion of solar to chemical energy. [LEARN MORE](#)

Fungal Program



This program scales up genomic sequencing and analysis to explore the diversity of fungi important for energy and the environment, and to promote system-level functional studies. [LEARN MORE](#)

Metagenome Program



A primary motivation for metagenomics is that most microbes found in nature exist in complex, interdependent

Microbial Program




The Microbial Program exploits expertise and emerging technologies in sequencing, annotation and analysis to

Improved content flow!



More visibility
for regular
content features

Topics are
repeated in
multiple areas


**JOINT GENOME INSTITUTE**
UNITED STATES DEPARTMENT OF ENERGY

[ABOUT US](#) [PHONE BOOK](#) [CONTACT US](#) [SEARCH](#)

[Our Science](#) [Our Projects](#) [Data & Tools](#) [Collaborate with JGI](#) [News & Publications](#)

[News Releases](#) [Blog](#) [Publications](#) [Scientific Posters](#) [Newsletter](#) [Logos](#)

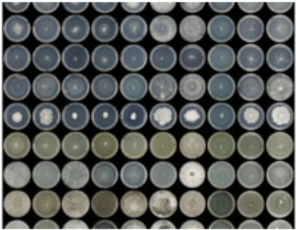
News & Publications



AUGUST 24, 2014

Signatures of Selection Inscribed on Poplar Genomes

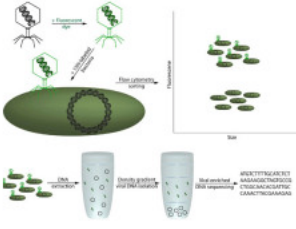
Genome-Wide Study Shows Evidence of Genetic Selection One aspect of the climate change models researchers... [\[Read More\]](#)



AUGUST 7, 2014

DOE JGI, EMSL Announce 2015 Collaborative Science Projects

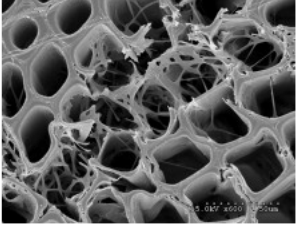
Combining complementary resources for greater scientific understanding. The U.S. Department of Energy Joint Genome Institute (DOE JGI)... [\[Read More\]](#)



JULY 13, 2014

Dyeing to Learn More About Marine Viruses

Tagging strategy allows for population surveys The sheer volume of cyanobacteria in the oceans makes... [\[Read More\]](#)



JUNE 23, 2014

Treading into a Gray Area Along the Spectrum of Wood Decay Fungi

One of the most basic rules for playing the game "Twenty Questions" is that all... [\[Read More\]](#)

Upcoming

Save the Date for the [10th Annual Genomics of Energy and Environment Meeting](#)

Small-scale Microbial/Metagenome Proposals due Nov 20, 2014

Media Contact

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More UX problems to solve...

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